Relying exclusively on renewable energy only forces dependency on the fossil fuel industry. Renewable energy doesn’t produce power at a magnitude nearly high enough to match the energy demands of the US.

Stover[[1]](#footnote-1) 14

For its part, the renewables industry must understand that resisting all attempts at creating a nuclear waste repository only ensures that the fossil fuel industry will continue to pump more of its harmful wastes into the atmosphere. In Germany, the renewables-only approach that will phase out nuclear power by 2022 drove coal consumption to a new high in 2013. Relying exclusively on renewables is not a realistic option there or in the United States, given the intermittency problem: Wind turbines, for example, only generate power at about a third of their capacity, whereas nuclear power plants typically operate at more than 85 percent of capacity. In the United States, nuclear is too big a player to be ruled out of the equation without handing the victory to natural gas. Attacking nuclear power is like voting for Ralph Nader: It may feel good but it accomplishes nothing. Although nuclear-power advocates don’t argue that renewables should not be part of the picture, they often pretend that their way is superior. They should stop and instead focus on how nuclear energy can complement renewables. Nuclear power appeals to a different group of Americans than renewables do, and its proponents could help build a larger constituency for climate action if they were more vocal in their opposition to fossil fuels.

Currently, global coal usage is declining. Boren and Myllyvarta 15

Global coal consumption fell by between 90 and 180 million tonnes in the first half of this year — the largest drop on record. [According to a Greenpeace analysis](http://www.greenpeace.org/international/Global/international/publications/climate/2015/Coals-Terminal-Decline.pdf), between the months of January and September 2015 coal use around the world was down by at least 2.3% and by as much as 4.6% versus the same period last year. This historic fall was caused by a ‘perfect storm’ of circumstance: dire fossil fuel economics, rising renewable energy uptake, slowing global energy demand, and China’s crackdown on air pollution. Because this fall doesn’t happen without China, by far the largest coal consuming country in the world. After its rapid coal growth made a dramatic u-turn in 2014, China has seen a massive decline in its use so far this year. The country’s 3-5% fall in the first half of 2015 (43-69Mtce) accounts for more than half of the world’s coal consumption reduction.”

Climate Change is a solvable problem in the status quo if we do not continue to pollute as much. Center for Climate Change Communication[[2]](#footnote-2)

http://climatechangecommunication.org/its-solvable/

“While we can’t stop climate change in its tracks, [but] we can limit it to less dangerous levels by reducing our emissions. Even if all human-related emissions of carbon dioxide and the other heat-trapping gases were to stop today, Earth’s temperature would continue to rise for a number of decades and then slowly begin to decline. However, focusing on short-lived types of emissions, such as methane and black carbon (soot), can reduce the rate of change in the near term. Because of the complex processes controlling carbon dioxide concentrations in the atmosphere, even after more than a thousand years, the global temperature would still be higher than it was in the pre-industrial period. As a result, without technological intervention, it will not be possible to totally reverse climate change. We do face a choice between a little more warming and lot more warming, however. The amount of future warming will depend on our future emissions.”

Fossil fuel use is on the decline, and nuclear power usage is rising. Rhodes and Beller[[3]](#footnote-3)

http://www.jstor.org.shs-13.scarsdaleschools.k12.ny.us:2048/stable/pdf/20049612.pdf

Most of the world s energy today comes from petroleum (39.5 per cent), coal (24.2 percent), natural gas (22.1 percent), hydroelectric power (6.9 percent), and nuclear power (6.3 percent). Although oil and coal still dominate, their market fraction began declining decades ago. Meanwhile, natural gas and nuclear power have [has] steadily increased their [its] share and should continue to do so. Contrary to the assertions of antinuclear organizations, nuclear power is neither dead nor dying. France generates 79 percent of its electricity with nuclear power; Belgium, 60 percent; Sweden, 42 percent; Switzerland, 39 percent; Spain, 37 percent; Japan, 34 percent; the United Kingdom, 21 percent; and the United States (the largest producer of nuclear energy in the world), 20 percent. South Korea and China have announced ambitious plans to expand their nuclear-power capabilities?in the case of South Korea, by building 16 new plants, increasing capacity by more than 100 percent. With 434 operating reactors worldwide, nuclear power is meeting the annual electrical needs of more than a billion people.

The eradication of nuclear power leads to a dependency on fossil fuels which increases CO2 emissions. Robson and Lovering [[4]](#footnote-4)

https://medium.com/@ThirdWayTweet/in-most-cases-closing-a-nuclear-plant-is-all-pain-and-no-gain-135911655b8e#.yjcariipd

Recent history backs up this case, confirming that when nuclear plants close, total CO2 emissions go up as a mix of both renewable energy and carbon-emitting natural gas power plants ramp up to replace lost power generation. There are several examples of this in the United States, the most relevant being the recent closure of the San Onofre Nuclear Generating Station (SONGS) in 2012. After the SONGS closure, annual statewide emissions of CO2 from electricity production [increased by 24 percent](http://www.sandiegouniontribune.com/news/2015/nov/09/nuclear-retirements-challenge-san-onofre/) as the plant was replaced by a combination of renewable and natural gas-fired sources. Similarly, after Vermont Yankee in Vermont closed in 2014, CO2 [emissions in the New England power grid increased 5%,](https://www.bostonglobe.com/metro/2016/05/15/carbon-emissions-rising-new-england-power-plants/9WfbtQMJEMBszzxPzf2OLO/story.html) reversing five-years of steady reductions in CO2 emissions. In Wisconsin, emissions [jumped more than 15 percent](http://www.nei.org/News-Media/News/News-Archives/5-Reasons-Nuclear-Energy-Is-Vital-to-EPA-s-Clean-P) following the shutdown of the Kewaunee nuclear facility.

An increase in CO2 in the atmosphere can lead to extinction. Radford 15[[5]](#footnote-5)

http://www.climatechangenews.com/2015/04/18/ocean-acidification-triggered-mass-extinctions-252-million-years-ago/

Over the last 40 years, researchers have introduced a whole suite of plausible triggers for the Permian extinction, but at last one team had clear evidence of increased atmospheric carbon, probably from a prolonged and convulsive series of volcanic eruptions that gave rise to vast, ancient geological formations now known as the Siberian Traps. “Scientists have long suspected that an ocean acidification event occurred during the [and] greatest mass extinction of all time, but direct evidence has been lacking until now”, said Dr Clarkson. “This is a worrying finding, considering that we can already see an increase in ocean acidity today that is the result of human carbon emissions.”

AND, harms of the coal industry outweigh the aff on scope and magnitude – The effects of anthropogenic coal warming disproportionately harm natives and underprivileged citizens worldwide.

Wilson[[6]](#footnote-6)

Carbon dioxide, or CO2, is a major cause of global warming. Pertinent to this discussion, coal is the world’s most carbon-intensive fuel, which means that coal power plants produce more CO2 per unit of energy than any other energy source. In 2006, coal-fired power plants in the United States alone produced 1.94 billion tons of CO2 — 32 percent of the U.S.’s total CO2 emissions, and almost 7 percent of the world’s total CO2 emissions. To put this in perspective, coal power plants in the U.S. emitted more CO2 in 2006 than the total amount that was emitted by all sources in all countries in Latin America and the Caribbean that year. Climate change is already devastating the Global South — and that devastation will only accelerate as the 21st century continues. The public narrative has focused to a large extent on global warming causing rising sea levels, which will inundate low-lying countries such as Bangladesh and island-states in the Pacific Ocean. Another very threatening impact of global warming is the transformation that it will cause in global weather patterns — generating increasingly severe weather and rising drought levels — which will disproportionately affect people throughout the world who rely on subsistence agriculture for their survival. In November 2011, a report by the Intergovernmental Panel on Climate Change linked increases in extreme weather events to human-caused climate change: There is evidence that some weather extremes have already changed as a result of anthropogenic influences, including increases in atmospheric concentrations of greenhouse gases. It is likely that anthropogenic influences have led to warming of extreme daily minimum and maximum temperatures on the global scale. There is medium confidence that anthropogenic influences have contributed to intensification of extreme precipitation on the global scale. It is likely that there has been an anthropogenic influence on increasing extreme coastal high water due to increase in mean sea level. The Fourth Assessment Report of the Intergovernmental Panel on Climate Change states that global warming will cause the most dramatic impacts in Africa, in Asian and African mega deltas, and on small, low-lying islands (such as those in the Pacific Ocean); experts agree that people in Africa and South Asia will be more dramatically affected by these changes in weather patterns than people in the North America and Europe. However, global climate change is not only a threat to communities in the Global South. In recent years, politicians and regulatory agencies in the U.S. have begun to address the threat that global warming poses to communities here in the U.S. In 2007, the Supreme Court ruled that CO2 and other greenhouse gases are pollutants under the Clean Air Act, and directed the EPA to follow the requirements of the Act and determine whether greenhouse gases endangered public health or welfare. In 2009, the EPA responded to the Supreme Court, and found that the increased concentrations of greenhouse gases threaten the public health and welfare of current and future generations of U.S. citizens. The impacts of climate change cited by the EPA include, but are not limited to: increased drought; an increased number of heavy downpours and flooding; more frequent and intense heat waves and wildfires; greater sea level rise; more intense storms; and harm to water resources, agriculture, wildlife, and ecosystems. In reaching its finding, EPA noted that certain populations may be especially vulnerable to climate impacts, including people living in poverty, people who are elderly, people already in poor health, people with disabilities, people living alone, and/or Indigenous populations dependent on one or a few natural resources. In developed areas, environmental justice issues are also raised by climate change — for example, warmer temperatures in urban areas will have a more severe impact on people who cannot afford air-conditioning.

Nuclear power saves hundreds more lives than it’s alternatives and reduces emissions tenfold this turns case

Pushker A. Kharecha and James E. Hansen 13, Pushker Kharecha is an associate research scientist at the NASA Goddard Institute for Space Studies and Columbia University’s Center for Climate Systems Research. James E. Hansen, Goddard’s former director, is an adjunct professor at the Department of Earth and Environmental Sciences at Columbia University., 4-15-2013, "Fossil Fuels Do Far More Harm Than Nuclear Power," Earth Institute, <a href="http://blogs.ei.columbia.edu/2013/04/15/fossil-fuels-do-far-more-harm-than-nuclear-power/">http://blogs.ei.columbia.edu/2013/04/15/fossil-fuels-do-far-more-harm-than-nuclear-power/</a>

Using historical electricity production data and mortality and emission factors from the peer-reviewed scientific literature, we found that despite the three major nuclear accidents the world has experienced — at Three Mile Island, Chernobyl, and Fukushima — nuclear power prevented an average of over 1.8 million net deaths worldwide between 1971-2009. This amounts to at least hundreds and more likely thousands of times more deaths than it caused. An average of 76,000 deaths per year were avoided between 2000-2009. Likewise, we calculate that nuclear power prevented an average of 64 gigatonnes of CO2-equivalent net GHG emissions globally between 1971-2009. This is about 15 times more emissions than it caused. It is equivalent to the past 35 years or 17 years of CO2 emissions from coal burning in the US or China, respectively. In effect, nuclear energy production has prevented the building of hundreds of large coal-fired power plants. To compute potential future effects, we started with projected nuclear energy supply for 2010-2050 from an assessment by the UN International Atomic Energy Agency that takes into account the effects of the Fukushima accident. We assumed that all of this projected nuclear energy is canceled and replaced entirely by energy from either coal or natural gas. We calculated that this nuclear phaseout scenario would lead to an average of 420,000 to 7 million deaths and 80–240 gigatonnes of CO2-equivalent net GHG emissions globally. This emissions range corresponds to 16-48 of the “allowable” cumulative CO2 emissions between 2012-2050 if the world chooses to aim for a target atmospheric CO2 concentration of 350 parts per million by around the end of this century. In other words, projected nuclear power could reduce the CO2 mitigation burden for meeting this target by as much as 16–48. The largest uncertainties and limitations of our analysis stem from the assumed values for impacts per unit electric energy produced. However, we emphasize that our results for both prevented mortality and prevented GHG emissions could be substantial underestimates, because (among other reasons) our mortality and emission factors are based on analysis of Europe and the US (respectively), and thus neglect the fact that fatal air pollution and GHG emissions from power plants in developing countries are on average substantially higher per unit energy produced than in developed countries. Our findings also have important implications for large-scale “fuel switching” to natural gas from coal or from nuclear. Although natural gas burning emits less fatal pollution and GHGs than coal burning, it is far deadlier than nuclear power, causing about 40 times more deaths per unit electric energy produced. Also, such fuel switching is practically guaranteed to worsen the climate problem for several reasons. First, carbon capture and storage is an immature technology and is therefore unlikely to constrain the resulting GHG emissions in the necessary time frame. Second, electricity infrastructure generally has a long lifetime (e.g., fossil fuel power plants typically operate for up to 50 years). Third, potentially usable natural gas resources (especially unconventional ones like shale gas) are enormous, containing many hundreds to thousands of gigatonnes of carbon (based on a recent comprehensive assessment. For perspective, the atmosphere currently contains about 830 gigatonnes of carbon, of which 200 gigatonnes are from industrial-era fossil fuel burning. We conclude that nuclear energy – despite posing several challenges, as do all energy sources – needs to be retained and significantly expanded in order to avoid or minimize the devastating impacts of unabated climate change and air pollution caused by fossil fuel burning.

1. Dawn Stover, environmental journalist – published in Popular Science, Bulletin of the Atomic Scientists, and Scientific American. “Nuclear v.s Renewables: Divided They Fall.” [↑](#footnote-ref-1)
2. http://climatechangecommunication.org/its-solvable/ [↑](#footnote-ref-2)
3. http://www.jstor.org.shs-13.scarsdaleschools.k12.ny.us:2048/stable/pdf/20049612.pdf [↑](#footnote-ref-3)
4. https://medium.com/@ThirdWayTweet/in-most-cases-closing-a-nuclear-plant-is-all-pain-and-no-gain-135911655b8e#.yjcariipd [↑](#footnote-ref-4)
5. http://www.climatechangenews.com/2015/04/18/ocean-acidification-triggered-mass-extinctions-252-million-years-ago/ [↑](#footnote-ref-5)
6. Adrian Wilson, sponsored by the National Association for the Advancement of Colored People, Indigenous Environmental Network, and Little Village Environmental Justice Organization. “Coal Blooded: Putting Profits Before People.” http://www.naacp.org/page/-/Climate/CoalBlooded.pdf [↑](#footnote-ref-6)